What is Claimed is:

[c1] A method of dynamically controlling restart processing for recovery of an application, said method comprising the steps of:

dynamically calculating a restart time required to restart a resource manager in case of termination or recovery of said resource manager; and

dynamically initiating said resource manager to take a checkpoint whenever said restart time exceeds a specified restart time.

[c2] Method of claim 1 further comprising the step of receiving a new request to modify a resource.

[c3] Method of claim 2, wherein the step of dynamically calculating comprises calculating said restart time to include the new request and all accumulated requests since a last checkpoint which participate in the restart processing.

[c4] Method of claim 2, wherein the specified restart time is specified to said resource manager by said application.

[c5] Method of claim 4, wherein said application comprises an application client.

[c6] Method of claim 4, wherein said application comprises an application server.

[c7] Method of claim 6, wherein said application server also administrates a request-load-log of all accumulated requests since said last checkpoint for the step of dynamically calculating said restart time.

[c8] Method of claim 6, wherein a plurality of resource managers are connected to said application server.

[c9] Method of claim 6, wherein an application client specifies to said application server a maximum request response time defining a time not to be exceeded for application requests even in case of termination or recovery of said resource manager, and wherein said application server converts said maximum request response time to said current maximum restart time by subtracting from said maximum request response time processing time of further activities associated with said restart processing.

[c10]   Method of claim 9, wherein said further activities comprise processing time required to restart said application server.

[c11]   Method of claim 9, wherein said further activities comprise processing time required for re-attaching said application server to said resource manager.

[c12]   Method of claim 1, wherein a resource manager performs the steps of dynamically calculating and dynamically initiating.

[c13]   Method of claim 1, wherein an application server performs the steps of dynamically calculating and dynamically initiating.

[c14]   A method of recovering a valid state of a resource manager in response to an abnormal termination of the resource manager, the method comprising the steps of:

    receiving a plurality of requests for one or more resources managed by the resource manager;

    calculating, as each one of the requests is processed, the time required to restore a valid state of the resource manager in response to an abnormal termination of the resource manager; and

    saving the current state of the resource manager each time the calculated restore time exceeds a specified time period.

[c15]   A computer program product for execution in a data processing system comprising computer program code portions for performing respective steps of a method for dynamically controlling restart processing for recovery of an application, when said computer program portions are executed on a computer, said method comprising the steps of:

    dynamically calculating a restart time required to restart a resource manager in case of termination or recovery of said resource manager; and

    dynamically initiating said resource manager to take a checkpoint whenever said restart time exceeds a specified restart time.

[c16]   A computer program product stored on a computer usable medium comprising computer readable program code portions for causing a computer to perform a method for dynamically controlling restart processing for recovery of an

application, when said computer readable program code portions are executed on a computer, said method comprising the steps of:

dynamically calculating a restart time required to restart a resource manager in case of termination or recovery of said resource manager; and

dynamically initiating said resource manager to take a checkpoint whenever said restart time exceeds a specified restart time.